

## DEVICES FOR COOLING OR HEATING LIQUIDS IN A BOTTLE

### Abstract of the Disclosure

Heat-exchanging devices for cooling or heating liquids in a bottle or can, which include in a first embodiment, an elongated cooling or heating tube having a tube bore filled with a refrigerant/heating fluid such as water and sealed at the top, with liquid flow openings provided in the tube, or in a tube connector attached to the tube above a tube seal. The tube or tube connector is fitted with a cap having internal threads for engaging the external threads of the bottle neck of the bottle into which the cooling tube is inserted. In second and third embodiments the insertable tube contains a pair of interconnected reservoirs containing liquids that will create an exothermic or endothermic reaction when mixed. A disc separating the liquids is ruptured by button action at the base of the tube to facilitate mixing of the liquids by gravity. Access to the cooled or heated liquid in the bottle is gained in each case by inverting the bottle in conventional manner to allow a flow of liquid from the bottle through the openings in the upper portion of the tube or the tube connector and into a spout provided in the cap, for drinking purposes. In a preferred embodiment a sports valve may be provided on the spout for sealing the spout against inadvertent leakage or spillage of the contents of the bottle.